Pranav Arunandhi

apranav@mit.edu, (248) 835-2886

Education

Massachusetts Institute of Technology *Sep 2020 - May 2024*

S.B. in Computer Science and Aerospace Engineering

- Relevant Coursework: Fundamentals of Programming, Introduction to Machine Learning, Design and Analysis of Algorithms, Introduction to Algorithms

Software and Programming Skills

Solidworks (Certified), Python, Java, SQL, MATLAB, C/C++, HTML, CSS, JavaScript, PHP

Software and Robotics Activities

Aerospace Controls Laboratory, MIT *- Undergraduate Researcher* *Sep 2020 - present*

- Implementing autonomous driving policies in Python for a public Github repository to compare socially acceptable robot navigation algorithms

MIT Driverless *- Controls Team Member* *Oct 2020 - present*

- Analyzing data from test runs in MATLAB to develop and improve physical vehicle model

FIRST Robotics Team 469 *- Team Co-Captain, Integration Lead* *Sep 2016 - present*

- Currently building UV-C disinfecting machine for first responders
- Modelled with CAD, machined, assembled, wired, and programmed in C++/Java/Python
- Dean's List Semi-Finalist, Robotics Department award; 2017 Michigan State FIRST Robotics Champions; Excellence in Engineering Award (x2), Innovation in Control Award

Zero Robotics Team Space Phoenix *- Team Founder and Captain* *Sep 2018 - Jan 2019*

- Programmed a satellite to navigate through debris and hook onto and rescue another satellite; Analyzed data to optimize algorithm in collaboration with 2 teams in Romania
- Second Place in the Virtual Finals on ISS

Oakland University *- Student Researcher* *Jun 2018 - Aug 2019*

- Conducted research on optimizing computer network structures; Presented at an international math conference in Florida (SEICCGC), and published in the Parallel Processing Letters (Vol. 29, Issue 2).

EduTutors *- Founder and Lead Tutor* *Nov 2017 - present*

- Created and launched a website for free tutoring
- Helped 50+ students through homework help, tutoring, STEM classes, and standardized test prep

Second Lieutenant, Civil Air Patrol, U.S. Air Force Auxiliary *Jul 2017 - present*

Executive Officer, Aerospace and Cyber Education Officer

- Teaching classes about aerospace, programming, and cybersecurity; Leading autonomous drone project for search and rescue (SAR) missions; Training cadets to qualify for SAR missions

DASI Solutions *- IT Intern* *Jun - Aug 2019*

- Developed and debugged the door access system for DASI Solutions using Visual Basic.

Miscellaneous

Languages: English (native), Spanish (working proficiency), Tamil (native speaker)
Interests: Bhangra and Bollywood dance, saxophone, violin, volleyball, table tennis